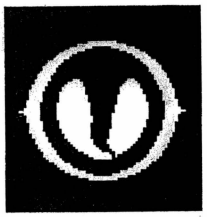


**Packerland Amateur Skywarn Society**

**Serving the Green Bay Central Warning Area**

**P.O. Box 12631 Green Bay, Wi. 54307-2631**


## Introduction:

Thank you for your interest in the Northeastern Wisconsin SKYWARN System. Please take a few minutes of your time to read these pages, and keep them handy for future reference. We hope you find this important public service activity interesting and fulfilling. Again, Thank-You for your participation!

## Purpose:

The purpose of the SKYWARN system is to provide the National Weather Service (NOAA Weather) with selected observations of local weather conditions by way of Amateur Radio. These observations are provided by specially trained amateur operators, and relayed to the NWS by other trained operators by way of a series of local and regional nets.

## Why Us?

Modern weather forecasting technology, as advanced as it may be, cannot do it all. Even though the meteorologists have great tools at their disposal, it is desirable to have trained "Eyes and Ears" in the field to help them make critical weather decisions. Amateurs have the ability to communicate over great distances via radio, so the role of the Amateur Radio Operator as a trained weather observer seems natural.

## Operation:

Each observer, called a "*Weather Spotter*", reports his observations to a county net control operator. This operator relays this data to another amateur. This amateur is a "*Liaison Operator*". The Liaison Operator relays this information to a regional net. The regional net control operator relays the information to the meteorologists at the National Weather Service. They use this information to help them evaluate current weather conditions. This helps them to issue Tornado Watches and Warnings, and to warn local government agencies of impending severe weather conditions that may affect the general public. The weather spotters are the "Front Line" in disaster preparedness.

## Our Goal:

To provide the highest quality of public service that we are capable of providing.

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# Important Things to Remember for Weather Spotters

1) Always keep your personal safety in mind. Don't make a bad situation worse by becoming a victim!

2) If you find yourself in an Emergency situation, follow the instructions of emergency personnel. Try to aid them only if it does not hinder their performance. Remember, you are trained as a weather spotter and emergency communicator.

3) Follow the instructions of your net control operator.

4) Remember the rules of reporting, and how to report. An easy way to remember this is "TLC", or Time, Location, Condition. Let's review these separately:

4A) Report the Time you saw something. This is important, it is used to gauge how fast severe weather is moving.

4B) Report the Location of what you have observed. Use major intersections, street names, or county highway inter sections as a guide. If you are not near such an intersection, use mileage to an intersection, or a major landmark, well known to anybody, or likely to be referenced on a map.

4C) Report the Conditions you have observed. This includes not only What you saw, but the direction and speed it is moving. Remember that you are asked to report the following, in this order of priority:

- Tornados on the ground
- Funnel Clouds aloft
- Wall Clouds
- Hail or High Winds (55 MPH or higher)
- Rain in excess of 1 inch per hour
- Frequent Lightning (60 strokes per minute)
- Damage or Flooding

5) Keep Cool. Before you transmit, try to arrange what you are going to say. Try to say it in as few words as possible while still getting the point across. Remember to speak clearly and distinctly, sound professional. Omit unneeded details, like "The wind almost blew me off the road!". If you reported 60 mile per hour winds, your net control has already figured that out.

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6) *Don't* take secondhand reports and re-hash them as your own. Don't report what you see on the TV Radar unless you are specifically asked. Do not relay reports you may hear on your scanner unless you are asked. Do not relay the report of an untrained person, unless asked. The only persons who have the authority to ask you to do this are the net control, or someone authorized by your net control operator.

7) If you are unclear on any of this, do not hesitate to contact your county emergency coordinator. The EC is there to see our program succeed, and will be happy to help.

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# Skywarn Net Information for Weather Spotters

The Skywarn Severe Weather net is a specially structured net designed to collect the maximum amount of useful information in the most efficient manner. Because of the important nature of the net, we strive to keep operation as clean as possible, and as easy as possible for the spotters to operate.

In order to help our spotters understand and correctly utilize the net for weather reporting, we present this short tutorial on the net basics and structure.

## Basic Net Structure

When possible, we try to adhere to a net model that involves 4 basic "Information Handlers" that send collected information to the National Weather Service meteorologists, and receive information from the NWS meteorologists.

Spotters collect information and relay it to a *County Net Control Operator*. This operator manages the collection of information from spotters, dispatching spotters to areas of concern, and other common net control duties. Each county has a designated net operation frequency that is separate from the Central NWS Net frequency.

The County Net Control Operator selects another operator as a *Liaison* Operator. This operator has two radios at his disposal. One radio is tuned to his local county net, while the other radio is tuned to the Central NWS Net frequency. The Liaison operator relays information between the two nets. Spotter reports are relayed to the NWS Central Net through this operator, and requests for specific information are relayed from the NWS Central Net to the County net.

The NWS *Central Net Control Operator* is responsible for collecting information from the various County Liaison Operators and relaying it to the meteorologists at the NWS Office he or she operates from. If the meteorologists have need for information from a specific area, they request it from the Central Net Control Operator. This operator relays this request to the appropriate county Liaison Operator. The Liaison Operator relays the request to the County Net Control Operator, who dispatches a spotter to the appropriate area of concern.

## Special Circumstances

Sometimes, a particular county may not be able to provide enough operators to follow the preferred model of net operation. This means that one of the following may occur:

- Spotters may report directly to the NWS Central Net
- County Net Control Operators may act as both Net Control and Liaison Stations.
- A "Sub-Net" may be set up on a distant repeater to collect information from Liaison Operators representing distant counties.
- A county may relay information on behalf of another adjacent county whose liaison cannot make direct contact with the NWS Central Net.

In the first case, it is hoped that all counties have enough staff to have an organized County net, with a Liaison Station appointed and in place. However, not all of the counties in our Central Warning Area are well populated by hams. In this case, we permit spotters to participate directly in the central net.

It cannot be stressed enough: This is *NOT* the preferred setup. If circumstances change during the course of the net, then spotters will be moved off of the central net and onto a county net frequency. If a county is chronically short of operators and cannot operate in the preferred manner, then it is considered normal operation for that county's spotters to directly participate in the Central NWS Net.

Other circumstances involve the extroadinarly large distances we need to provide information about. The far western and northwestern counties of the Central Warning Area are one example of this. Not all of the potential liaison operators in Marathon, Wood, Portage, Lincoln, Florence, Oneida and Vilas Counties can access the NWS Central Net directly. In this case, separate nets are set up on the Wausau and Tomahawk repeaters to collect information to relay to the NWS Central Net. The NWS will collect this information by contacting the "Sub-Nets" directly and accept these reports.

The other case of indirect contact with the NWS Central Net would have an adjacent county's Liaison operator relay information to and from the NWS Central Net. Again, this is not a preferred setup, but does do when no other method works. It is preferred that a Liaison be appointed to the relaying county's net to lessen the load on the Central Net Liaison.

## Operating Out of Your "Home" County

Occasionally, weather spotters may find themselves traveling in other areas of the state when severe weather strikes. The policy of each county may vary, but generally, they appreciate the help of a trained spotter. If you find yourself in this situation, it is suggested that you do the following:

- Refer to the companion frequency chart to find what frequency a county net operates on
- Change to that frequency and wait for a lull in activity, if possible. If you are seeing something reportable, and it is very important, judge what you will be reporting and if it is of higher priority than the current reports being accepted.
- Check in to the net and make your report, or offer your services. If the county does not need additional help, then check out and listen to the net for reports of severe weather that you may be exposed to.
- If your offer of assistance is accepted and you are assigned to a location, try to rely on maps rather than asking for detailed instructions. Detailed instructions take time that may prevent other operators from making reports.

### Conclusion:

Before you contact the NWS Central Net, please consider the following:

- Check your local net frequency to see if your local net is in operation first.

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- Listen before contacting the NWS Central Net - an important exchange may be in progress.
- When requesting information, please try to ask only for information pertinent to your county.
- Please ask if your county needs to be activated and volunteer to handle activation if required. If you have problems activating your county, please inform the Central Net Control operator.

Also please try to follow the instructions of the Net Control Operator - Your cooperation is appreciated.

## Net Frequencies for the NWS Green Bay CWA

| County | Frequency | Tone |
|---|---|---|
| Brown | 146.835 | 107.2 |
| Calumet | 147.300 | - |
| Door | 147.210 | 107.2 |
| Florence | 145.110 | 107.2 |
| Forest | 145.110 | 107.2 |
| Kewaunee | 146.805 | 107.2 |
| Langlade | 145.310 | - |
| Lincoln | 145.430 | - |
| Manitowoc | 146.610 | - |
| Marathon | 146.820 | - |
| Marinette South | 145.470 | 114.8 |
| Marinette North | 147.000 | 107.2 |
| Menominee | 145.350 | 107.2 |
| Oconto South | 147.270 | 107.2 |
| Oconto North | 145.110 | 107.2 |
| Oneida | 146.940 | - |
| Outagamie | 146.655 | 107.2 |
| Portage | 146.820 | - |
| Shawano | 145.350 | 107.2 |
| Vilas | 146.940 | - |
| Waupaca | 147.165 | 103.5 |
| Wood | 147.390 | - |
| Winnebago | 147.240 | - |
| Wood | 146.790 | - |
| Wood | 147.180 | - |